

To: Special Master Kyles

From: Lexington Coal

Date: 10/25/23

Re: Special Master's review of the Plaintiff's Motion and Memorandum and Defendant's Response

Follow-up Questions

Question 1: Why is the industry-standard method for placement of media in BCR's not being followed?

Answer: Lexington Coal used an excavator to place the material into the BCR. Only where the excavator could not reach did Lexington Coal use a small rubber-tracked bob cat to spread the material. This procedure is similar to how successful BCR's were constructed in the past. Lexington Coal proposes to fluff the material if short-circuiting occurs.

Question 2: Why is the Cardno design for media layering apparently not being followed?

Answer: The Cardno design is being followed except that the media was mixed. The media consists of hay, wood chip, and a mushroom composite. The mixing together of the media makes it more efficient to fluff the material when required instead of having separate layers. Also, based upon experience, this method was successful at other constructed BCR's such as the Low Gap BCR. Additionally, the gravel was placed in the bottom of the BCR. Also, piping was placed in the bottom of the BCR per the Cardno design. The media thickness is also based on the Cardno design.

Question 3: What is the intended configuration (layout and sizing) for distribution piping and collection (drain) piping so as to avoid short-circuiting within the BCR?

Answer: Piping is installed in the BCR to collect effluent from within the gravel layer. However, based upon experience and following the Cardno design grid piping is unnecessary due to the size of BCR 1. When piping is placed in BCR 3 a grid pattern will be used due to the larger size of the BCR. The design of the BCR's is generally the same as the Cardno design. Here, Lexington has a collection pond (Aeration Basin) where water from the outlet will be pumped to this collection pond. Also, an Agri Drain is in place to adjust the BCR water level. Then the water will go into the BCR where biological treatment will occur. Finally, as shown in the Cardno White Flame 10 BCR Cross-Section the treated water will go into the polishing pond (Equalization Basin).

Submitted By:




KERMIT E. FINCHAM Jr. P.E. P. S.